

Amendment to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

1-13. (Canceled)

14. (Currently Amended) Use of a neural implant that enhances proliferation of neural tissue and minimizes scar formation comprising:

(a) obtaining a neural implantable device;

(b) coating the implantable device with a composite ~~nanomaterial, said nanomaterial comprising carbon nanofiber material with nanofibers~~ polyurethane/nanomaterial, wherein the nanomaterial component of said composite polyurethane/nanomaterial comprises carbon nanotubes of about out 2 to 200 nm in width that are functionalized with 4-hydroxynonenal and a polymer matrix; and

(c) securing the implantable device in the neural tissue where proliferation of neuronal tissue is desired.

15. (Currently Amended) Use of a neural implant that enhances proliferation of neural tissue and minimizes scar formation comprising:

(a) obtaining a neural implantable device comprising a composite ~~nanomaterial, said nanomaterial comprising carbon nanofiber material with nanofibers~~ polyurethane/nanomaterial, wherein the nanomaterial component of said composite polyurethane/nanomaterial comprises carbon nanotubes of about out 2 to 200 nm in width that are functionalized with 4-hydroxynonenal and a polymer matrix; and

(b) securing the implantable device in the neural tissue where proliferation of neuronal tissue is desired.

Claims 16-25 (Canceled).

26. (Currently Amended) The use in accordance with claim ~~[[23]]~~ 15 wherein the carbon nanotubes are aligned with one another.

27. (Currently Amended) Use of a neural implant that minimizes scar formation comprising:

- (a) obtaining a neural implantable device, wherein said neural implantable device comprises a nanocomposite component, said nanocomposite comprising ~~a polymer material~~ polyurethane and a ~~nanomaterial~~ carbon nanofiber, wherein ~~said nanomaterial~~ the carbon nanofibers have a size in the range of about 10 nm to about 100 nm in width and length;
- (b) implanting said neural implantable device in the neural tissue of a patient where proliferation of neuronal tissue is desired.

28. (Currently Amended) The use in accordance with claim 27, wherein said ~~nanomaterial~~ nanocomposite further comprises a plurality of nanoparticles disposed on said nanocomposite.

Claims 29-32. (Canceled)

33. (Currently Amended) The use in accordance with claim ~~[[32]]~~ 27 wherein the nanofibers are multi-walled nanotubes.

34. (Currently Amended) The use in accordance with claim ~~[[30]]~~ 27 wherein the polyurethane (PU)-carbon nanofiber (CN) composites have a size in the range of about 50 to 100 nm and the composite comprises about 80:20 by weight percent carbon nanofiber to polyurethane.

35. (Currently Amended) The use in accordance with claim ~~[[30]]~~ 27 wherein the polyurethane (PU)-carbon nanofiber (CN) composites have a size in the range of about 60 to 100 nm and the composite comprises about 90:10 by weight percent carbon nanofiber to polyurethane.